

Jefferson Proving Ground
Madison
Jefferson County
Indiana

HAER No. IN-54

HAER
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39-MAD,
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, DC 20013-7127

HAER
IND,
39-MAD,
44 -

HISTORIC AMERICAN ENGINEERING RECORD

Jefferson Proving Ground

IN-54

Location: Located north of Madison and eighty-five miles southeast of Indianapolis, in Jefferson, Ripley, and Jennings Counties, Indiana.

Date of Construction: Established in 1941.

Owner: Department of the Army

Significance: Jefferson Proving Ground was established prior to the United States involvement in World War II as a testing facility of various kinds of Army ammunition.

Historical Report
Prepared by: Barbara E. Hightower and William A. Brenner, 1984.

Prepared for
Transmittal by: Robie S. Lange, HABS/HAER, 1985.

EXECUTIVE SUMMARY

A part of the U.S. Army Test and Evaluation Command (TECOM), Jefferson Proving Ground is responsible for conducting tests of various kinds of Army ammunition. Located about 85 miles southeast of Indianapolis, the installation is situated on approximately 55,000 acres in Jefferson, Ripley, and Jennings Counties, Indiana. Initial construction of the installation took place in 1941. Following a sharp curtailment in ammunition production and testing at war's end, Jefferson Proving Ground was deactivated in 1945, and its buildings mothballed. The threat of war in Korea brought about its reactivation in 1949 for testing ammunition and component parts. The Korean War years saw a second wave of construction on the installation, but testing was reduced after the armistice. In 1958, the installation was placed on standby status, but was reactivated in 1961 and has been used for artillery testing since that time.

There are no Category I or II historic properties at Jefferson Proving Ground. The Old Timbers Lodge (Building 485) constructed in 1930-1932 is a Category III historic property because of its importance as a local landmark and as a work of architecture. The Oakdale School (Building 401), built in the late 1860s and one of the last remaining one-room schools in the local area, is a Category III historic property. Four stone arch bridges located uprange, all of nineteenth century design, are also Category III historic properties.

CONTENTS

Executive Summary

PREFACE.....	1
1. INTRODUCTION.....	3
Scope.....	3
Methodology.....	4
2. HISTORICAL OVERVIEW.....	12
Background.....	12
Pre-military Land Use.....	13
Site Selection and World War II Construction.....	24
Korean War.....	29
Post-Korean War.....	31
3. PRESERVATION RECOMMENDATIONS.....	32
Background.....	32
Category I Historic Properties.....	37
Category II Historic Properties.....	37
Category III Historic Properties.....	37
BIBLIOGRAPHY.....	41

PREFACE

This report presents the results of an historic properties survey of the Jefferson Proving Ground. Prepared for the United States Army Materiel Development and Readiness Command (DARCOM), the report is intended to assist the Army in bringing these installations into compliance with the National Historic Preservation Act of 1966 and its amendments, and related federal laws and regulations. To this end, the report focuses on the identification, evaluation, documentation, nomination, and preservation of historic properties at the Jefferson Proving Ground. Chapter 1 sets forth the survey's scope and methodology; Chapter 2 presents an architectural, historical, and technological overview of the installations and their properties; and Chapter 3 identifies significant properties by Army category and sets forth preservation recommendations. Illustrations and an annotated bibliography supplement the text.

This report is part of a program initiated through a memorandum of agreement between the National Park Service, Department of the Interior, and the U.S. Department of the Army. The program covers 74 DARCOM installations and has two components: 1) a survey of historic properties (districts, buildings, structures, and objects), and 2) the development of archeological overviews. Stanley H. Fried, Chief, Real Estate Branch of Headquarters DARCOM, directed the program for the Army, and Dr. Robert J. Kapsch, Chief of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) directed the program for the National Park Service. Sally Kress Tompkins was program manager, and Robie S. Lange was project manager for the historic properties survey. Technical assistance was provided by Donald C. Jackson.

Building Technology Incorporated acted as primary contractor to HABS/HAER for the historic properties survey. William A. Brenner was BTI's principal-in-charge, and Dr. Larry D. Lankton was the chief technical consultant. Major subcontractors were the MacDonald and Mack Partnership and Melvyn Green and Associates. The authors of this report were Barbara E. Hightower and William A. Brenner. The authors gratefully acknowledge the help of Mr. Behram Schroff, base environmental officer, and John Adams from base operations.

The complete HABS/HAER documentation for this installation will be included in the HABS/HAER collections at the Library of Congress, Prints and Photographs Division, under the designation HAER No. IN-54.

Chapter 1

INTRODUCTION

SCOPE

This report is based on an historic properties survey conducted in 1983 of all Army-owned properties located within the official boundaries of the Jefferson Proving Ground. The survey included the following tasks:

- Completion of documentary research on the history of the installation and its properties.
- Completion of a field inventory of all properties at the installation.
- Preparation of a combined architectural, historical, and technological overview for the installation.
- Evaluation of historic properties and development of recommendations for preservation of these properties.

Also completed as a part of the historic properties survey of the installation, but not included in this report, are HABS/HAER Inventory cards for 87 individual properties. These cards, which constitute HABS/HAER Documentation Level IV, will be provided to the Department of the Army. Archival copies of the cards, with their accompanying photographic negatives, will be transmitted to the HABS/HAER collections at the Library of Congress.

The methodology used to complete these tasks is described in the following section of this report.

METHODOLOGY

1. Documentary Research

The Jefferson Proving Ground, a part of the Army Test and Evaluation Command, was largely developed in the early years of World War II. Further construction took place during the Korean War. Documentary research focused on the physical development of the installation and its pre-military history. The Indiana State Historic Preservation Office was contacted about possible historic properties at the Jefferson Proving Ground, but no properties were identified by this source.

Army records used for the field inventory included current Real Property Inventory (RPI) printouts that listed all officially recorded buildings and structures by facility classification and date of construction; the installation's property record card; and base maps, drawings, and photographs supplied by installation personnel. A complete listing of documentary material may be found in the bibliography.

2. Field Inventory

The field inventory was conducted by Barbara Hightower, Robie Lange, and William Brenner during a two-day period in October 1983. Behram Schroff of the facility engineer's office served as the point of contact for the survey team, coordinated survey activities, and provided access to installation real property records. John R. Adams of the base operations acted as survey escort for the uprange areas of the base. Mrs. Patricia Selig of the Jefferson County Public Library supplied historical documents.

Field inventory procedures were based on the HABS/HAER Guidelines for Inventories of Historic Buildings and Engineering and Industrial Structures.¹ All areas and properties south of the firing line were visually surveyed. Building locations and approximate dates of construction were noted from the installations' property records and field-verified.

Most of the known pre-military properties north of the firing line were inventoried during the field inventory. These included stone ruins associated with several dwellings, a springhouse, and church; the Old Timbers Lodge; an historical marker associated with Morgan's raiders; a concrete bridge and two stone bridges. Two other stone arch bridges, five steel bridges, and a second Morgan's marker were not surveyed due to firing activities on the range. Photos of these properties, however, were located and reviewed.

The following were contacted but were unable to provide further information on the stone arch and steel truss bridges: the State Historic Preservation Office; the highway departments for Jefferson, Jennings, and Ripley Counties; Fort Belvoir structural engineers, who inspected the bridges in 1982; and Dr. James Cooper of DePaul University, who is currently conducting a statewide bridge survey sponsored by the State Historic Preservation Office.

Field inventory forms were prepared for, and black and white 35 mm photographs taken of all buildings and structures through 1945 except basic utilitarian structures of no architectural, historical, or technological interest. When groups of similar ("prototypical") buildings were found, one field form was normally prepared to represent all buildings of that type. Field inventory forms were also completed for representative post-1945 buildings and structures.² Information collected on the field forms was later evaluated, condensed, and transferred to HABS/HAER Inventory cards.

3. Historic Overview

A combined architectural, historical, and technological overview was prepared from information developed from the documentary research and the field inventory. It was written in two parts: 1) an introductory description of the installation, and 2) a history of the installation by periods of development, beginning with pre-military land uses. Maps and photographs were selected to supplement the text as appropriate.

4. Property Evaluation and Preservation Measures

Based on information developed in the historic overviews, properties were first evaluated for historic significance in accordance with the eligibility criteria for nomination to the National Register of Historic Places. These criteria require that eligible properties possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that they meet one or more of the following:³

- A. Are associated with events that have made a significant contribution to the broad patterns of our history.
- B. Are associated with the lives of persons significant in the nation's past.
- C. Embody the distinctive characteristics of a type, period or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.
- D. Have yielded, or may be likely to yield, information important in pre-history or history.

Properties thus evaluated were further assessed for placement in one of five Army historic property categories as described in Army Regulation 420-40:⁴

Category I	Properties of major importance
Category II	Properties of importance
Category III	Properties of minor importance
Category IV	Properties of little or no importance
Category V	Properties detrimental to the significance of of adjacent historic properties

Based on an extensive review of the architectural, historical, and technological resources identified on DARCOM installations nationwide, four criteria were developed to help determine the appropriate categorization

level for each Army property. These criteria were used to assess the importance not only of properties of traditional historical interest, but of the vast number of standardized or prototypical buildings, structures, and production processes that were built and put into service during World War II, as well as of properties associated with many post-war technological achievements. The four criteria were often used in combination and are as follows:

- 1) Degree of importance as a work of architectural, engineering, or industrial design. This criterion took into account the qualitative factors by which design is normally judged: artistic merit, workmanship, appropriate use of materials, and functionality.
- 2) Degree of rarity as a remaining example of a once widely used architectural, engineering, or industrial design or process. This criterion was applied primarily to the many standardized or prototypical DARCOM buildings, structures, or industrial processes. The more widespread or influential the design or process, the greater the importance of the remaining examples of the design or process was considered to be. This criterion was also used for non-military structures such as farmhouses and other once prevalent building types.
- 3) Degree of integrity or completeness. This criterion compared the current condition, appearance, and function of a building, structure, architectural assemblage, or industrial process to its original or most

historically important condition, appearance, and function. Those properties that were highly intact were generally considered of greater importance than those that were not.

4) Degree of association with an important person, program, or event.

This criterion was used to examine the relationship of a property to a famous personage, wartime project, or similar factor that lent the property special importance.

The majority of DARCOM properties were built just prior to or during World War II, and special attention was given to their evaluation. Those that still remain do not often possess individual importance, but collectively they represent the remnants of a vast construction undertaking whose architectural, historical, and technological importance needed to be assessed before their numbers diminished further. This assessment centered on an extensive review of the military construction of the 1940-1945 period, and its contribution to the history of World War II and the post-war Army landscape.

Because technology has advanced so rapidly since the war, post-World War II properties were also given attention. These properties were evaluated in terms of the nation's more recent accomplishments in weaponry, rocketry, electronics, and related technological and scientific endeavors. Thus the traditional definition of "historic" as a property 50 or more years old was not germane in the assessment of either World War II or post-war DARCOM buildings and structures; rather, the historic importance of all properties was evaluated as completely as possible regardless of age.

Property designations by category are expected to be useful for approximately ten years, after which all categorizations should be reviewed and updated.

Following this categorization procedure, Category I, II, and III historic properties were analyzed in terms of:

- Current structural condition and state of repair. This information was taken from the field inventory forms and photographs, and was often supplemented by rechecking with facilities engineering personnel.
- The nature of possible future adverse impacts to the property. This information was gathered from the installation's master planning documents and rechecked with facilities engineering personnel.

Based on the above considerations, the general preservation recommendations presented in Chapter 3 for Category I, II, and III historic properties were developed. Special preservation recommendations were created for individual properties as circumstances required.

5. Report Review

Prior to being completed in final form, this report was subjected to an in-house review by Building Technology Incorporated. It was then sent in draft to the subject installation for comment and clearance and, with its associated historical materials, to HABS/HAER staff for technical review. When the installation cleared the report, additional draft copies

were sent to DARCOM, the appropriate State Historic Preservation Officer, and, when requested, to the archeological contractor performing parallel work at the installation. The report was revised based on all comments collected, then published in final form.

NOTES

1. Historic American Buildings Survey/Historic American Engineering Record, National Park Service, Guidelines for Inventories of Historic Buildings and Engineering and Industrial Structures (unpublished draft, 1982).
2. Representative post-World War II buildings and structures were defined as properties that were: (a) "representative" by virtue of construction type, architectural type, function, or a combination of these, (b) of obvious Category I, II, or III historic importance, or (c) prominent on the installation by virtue of size, location, or other distinctive feature.
3. National Park Service, How to Complete National Register Forms (Washington, D.C.: U.S. Government Printing Office, January 1977).
4. Army Regulation 420-40, Historic Preservation (Headquarters, U.S. Army: Washington, D.C., 15 April 1984).

Chapter 2

HISTORICAL OVERVIEW

BACKGROUND

Jefferson Proving Ground is a part of the U.S. Army Test and Evaluation Command. Located about 85 miles southeast of Indianapolis, the proving ground is situated on approximately 55,000 acres in Jefferson, Ripley, and Jennings Counties, Indiana. Its firing ranges can accommodate all weapons and weapons systems from grenade launchers and small arms to 240-mm howitzers. Multiple firing and observation positions are located along the firing line and uprange. Ammunition is conditioned prior to firing in the installation's environmental temperature conditioning units, which range in temperature from minus 100° F to 200° F.¹

The physical development of the proving ground is largely tied to World War II and the Korean War. The site was acquired in 1940-1941, and construction began in 1941. Maintenance, administration, personnel, test firing, and assembly facilities and an airfield were built at the south end of the installation, and observation bunkers were erected uprange in the test firing area. The proving ground was in active use by the end of 1941, and by 1945 149 of its present 332 buildings had been constructed. The proving ground was deactivated at war's end and its buildings mothballed, but it was reactivated in 1949 shortly before the outbreak of the Korean War. The Korean War years saw a second wave of construction at the installation that focused on building additional test firing and storage facilities. Between 1951 and 1953, 107 new structures were added. Testing activity decreased at the end of the war, and in 1958 the

installation was placed on standby status. It was reactivated in 1961 and has been in continuous operation as a test range since that time. (Illustrations 1 and 2)

PRE-MILITARY LAND USE

Prior to World War II, the area now occupied by the proving ground was primarily agricultural. After its acquisition by the Army in late 1940 and early 1941, virtually all existing buildings were demolished or moved. Thirteen farmhouses were relocated to the southern portion of the proving ground for use as family housing. These structures (Buildings 1, 3, 4, 7, 8, 11, 12, 15, 16, 17, 20, 21, and 23) are grouped around a U-shaped parade ground at the south and of the main base area. They are of wood frame construction and vary in size, style, and age. While no records of their dates of construction exist, their appearance suggests they were built between the 1880s and 1930s. The houses were placed on new concrete block foundations when moved in 1941, and all have been covered with aluminum or asbestos cement siding. Many have undergone other exterior alterations as well. The Commanding Officer's house (Building 1) is the largest and most prominent of the group. (Illustration 3)

Other surviving pre-military buildings and structures on the proving ground include:

- Old Timbers Lodge (Building 485). This large stone masonry structure, constructed between 1930 and 1932, was built on a 2,300 acre tract on the west bank of Graham Creek by Alexander Thomson, then the president of Champion Paper Company, for use as a country house. Its "Great Hall", the major space in the house, measures approximately 62' x 26' and has random width oak flooring, exposed stone walls, hand-hewn

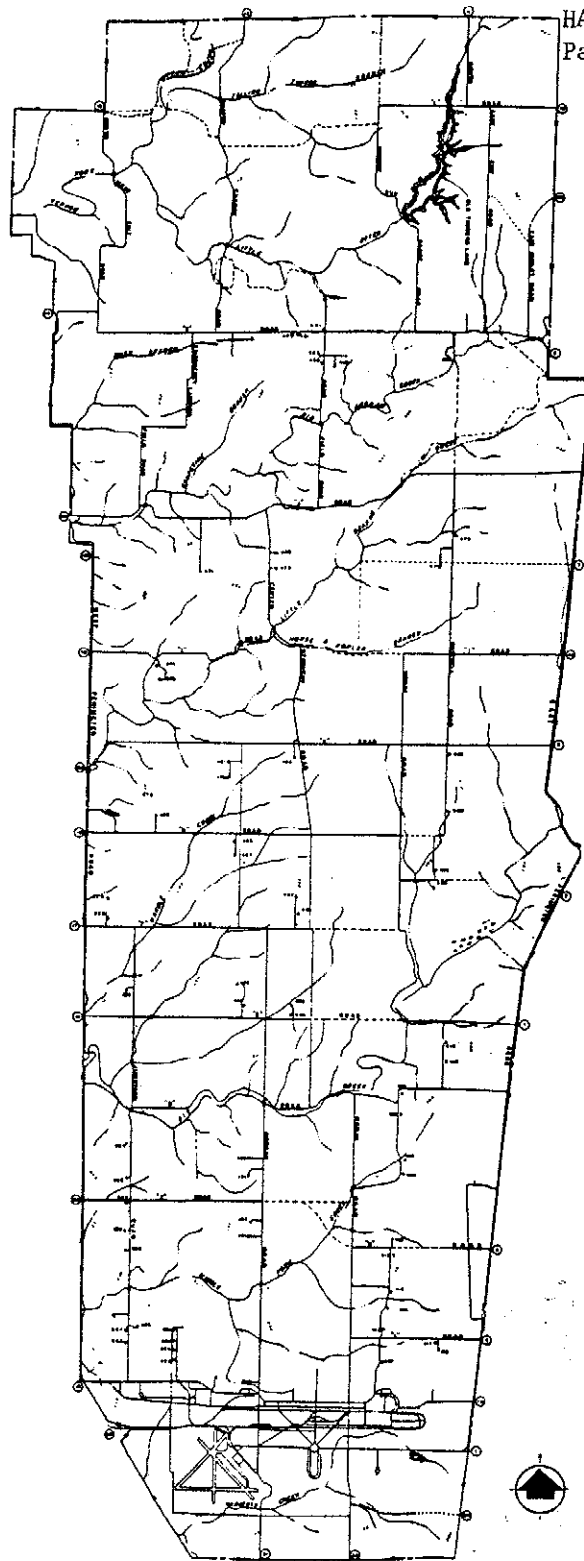


Illustration 1 Map of Jefferson Proving Ground. The 55,000 acre proving ground is located several miles north of Madison, Indiana, a town in southeast Indiana that borders the Ohio River. The proving ground is composed of two principal parts--the up-range firing area, and the main base (see Illustration 2), which is located at the southern end of the installation. (Source: Facilities Engineer, Jefferson Proving Ground)

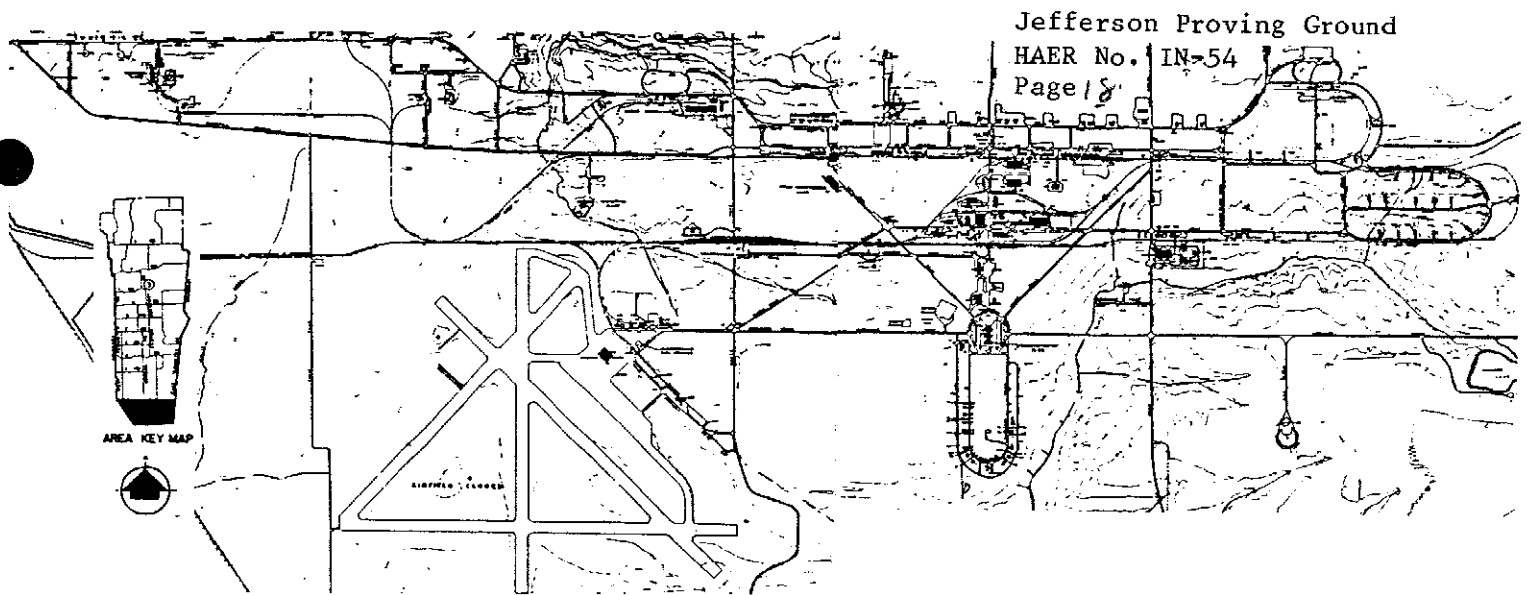


Illustration 2 Map of the main base area, which lies at the south end of the proving ground. (Source: Facilities Engineer, Jefferson Proving Ground)



Illustration 3 Commanding Officer's house (Building 1). This structure is the largest of the proving ground's 13 houses, which are grouped around the U-shaped parade ground in the southern portion of the main base area. All 13 were relocated from other parts of the proving ground after acquisition by the Army in 1941. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

beams, and two massive stone fireplaces. The hall is 30' high at its peak, and is surrounded on three sides by balconies.

The lodge was designed by Cincinnati architect Gustav Elzner, who used local materials in its construction, an idea popularized by the earlier arts and crafts movement. Limestone for the walls was quarried from a site northeast of the house, and much of the interior and exterior woodwork was salvaged from eight local barns and the timbers originally cut for a local grist mill. Architectural hardware and many of the lodge's furnishings were made at Berea College in Kentucky, a school with a strong tradition of handicraft production. Since its acquisition by the Army, the lodge has been maintained as a recreational facility for proving ground personnel. Few of the lodge's furnishings remain, but the structure is otherwise intact.² (Illustrations 4 and 5)

- Oakdale School (Building 401). The Oakdale School, located just north of the firing line, is the oldest surviving building on the proving ground. The one-story, gable-roofed building is constructed of local limestone. Its interior has wood flooring, plaster walls and ceiling, and well-detailed wooden window surrounds. The building replaced an earlier log schoolhouse in the late 1860s and was in continuous use until February 1941, when it was taken over by the Army. It is one of the few remaining one-room schoolhouses in the county.³ (Illustration 6)
- Stone building ruins. There are a number of stone ruins scattered throughout the uprange area. These include the ruins of a number of houses, a church, and a spring house. All were constructed of local limestone and most likely date from the middle to the late nineteenth century. The

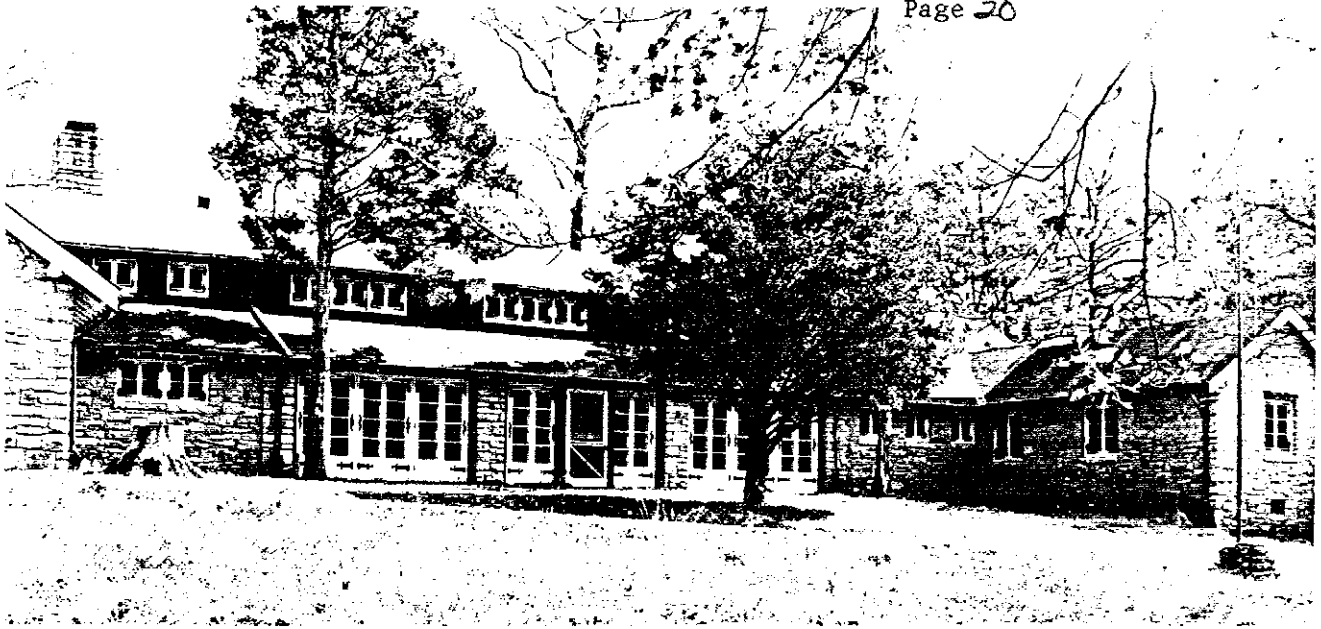


Illustration 4 Old Timbers Lodge (Building 485). Constructed in the early 1930s as a country house for Cincinnati industrialist Alexander Thomson, the Old Timbers Lodge is now used as a recreational facility for proving ground personnel. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

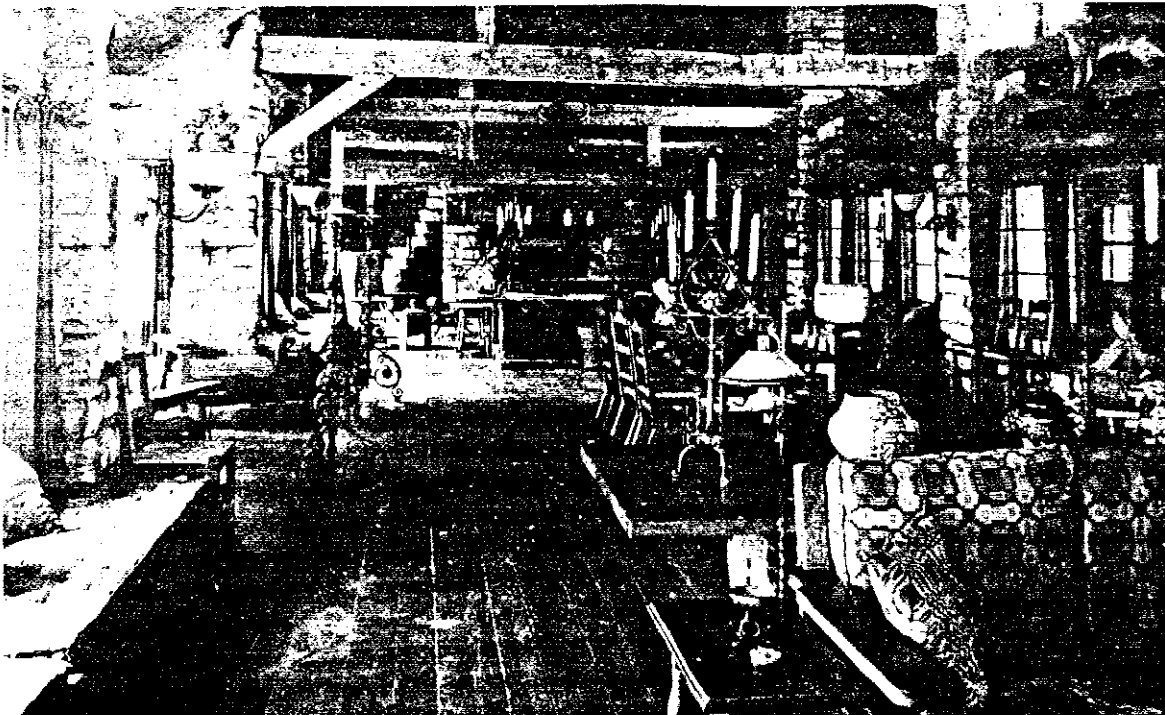


Illustration 5 Interior view, Old Timbers Lodge. Photograph of "Great Hall" taken sometime between 1932 and 1941. The room is flanked by massive stone fireplaces at both ends and is surrounded on three sides by balconies. The furnishings shown in the photo belonged to the original owners and were not acquired by the Army. (Source: Chilton Thomson, Old Timbers, 1981)

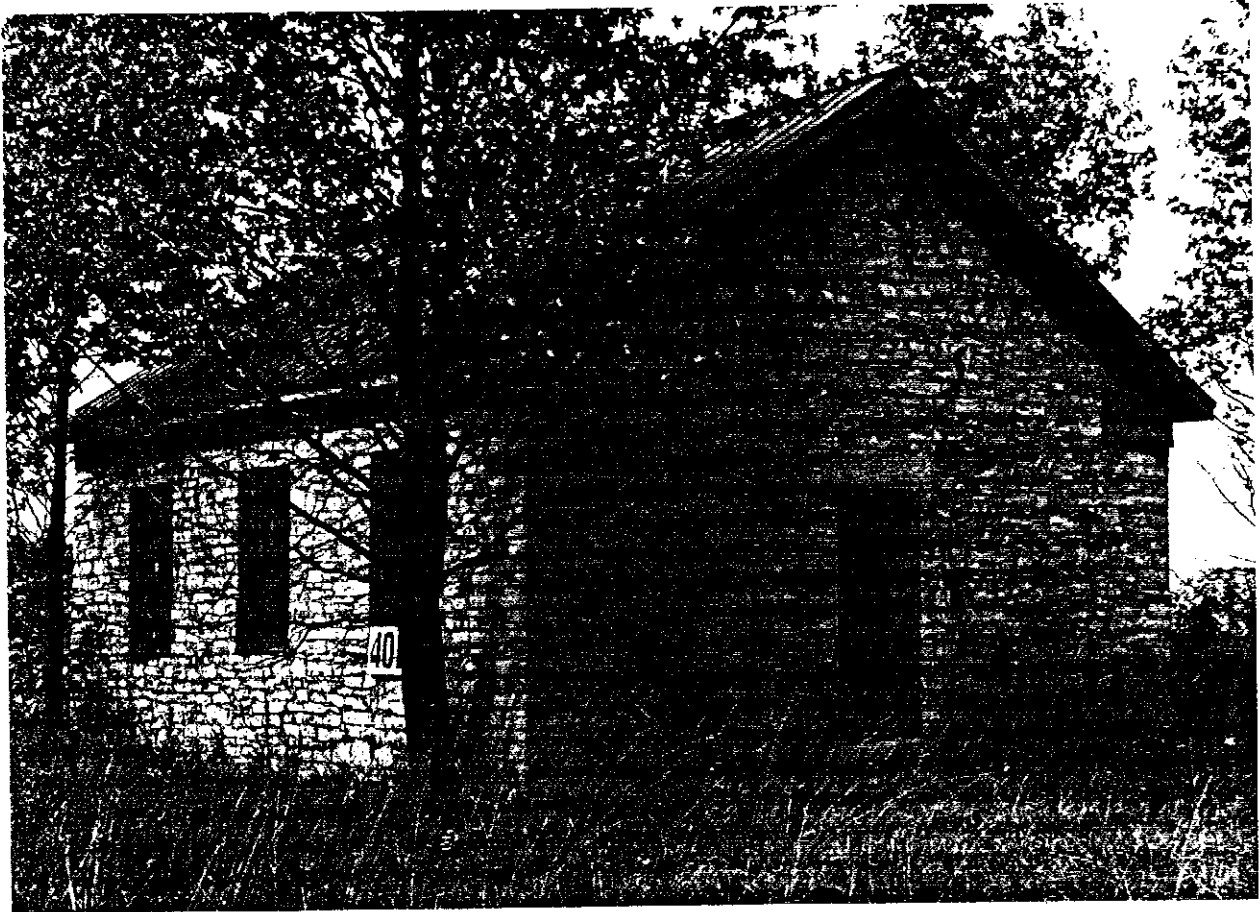


Illustration 6 Oakdale School. The Oakdale School was erected in the late 1860s, and like many of its contemporary buildings in the area, was constructed of local limestone. The structure is generally intact, and has plastered walls and ceiling, a wood floor, and well detailed interior window surrounds. It is one of the few remaining one-room schools in the county. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

church, only two walls of which are now standing, had dressed limestone quoins on the corners of its front elevation. Little exists of these structures but portions of their stone walls. (Illustrations 7 and 8)

- Bridges. A variety of nineteenth and early twentieth century bridges, all undated, are located in the uprange area. The earliest are the stone arch bridges (Bridges 17, 25, 27, and 28). Bridge 25 has a single arch, Bridges 17 and 28 have two arches, and Bridge 27 has three arches. All four are expertly constructed of coursed limestone in a simple but elegant design. Five metal truss structures (Bridges 2, 3, 6, 8, and 10), probably erected between the 1890s and the 1920s, form a second group of bridges. They are Pratt truss bridges of various spans and dimensions. A single reinforced concrete arch bridge (Bridge 22) is also located uprange. It has a single span of about 60 feet, and was probably built sometime between 1910 and the 1930s. It may be a WPA era bridge, although there are no visible markings to this effect. The structure shows signs of damage and deterioration but is still in service. The earlier stone arch and metal truss bridges also remain in use, but are in good condition. (Illustrations 9, 10, and 11)
- Morgan's raiders markers. Two stone markers, probably erected in the late nineteenth century, indicate the passage of Morgan's raiders through the area during the Civil War. One of the markers shows the approximate location where three of Morgan's men were captured by Union troops. (Illustration 12)



Illustration 7 House ruin. This is one of two substantial house ruins at the proving ground. The building was two stories high and covered with cement stucco. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)



Illustration 8 Church ruins. Located mid-range, this structure was covered with cement stucco and had cut stone quoins at both corners of its front facade. Like the house in Illustration 7, little remains but its exterior walls. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)



Illustration 9 Stone arch bridge. Of the four stone arch bridges at the proving ground, this structure, with three arches of about 40 feet each, is the largest. The four bridges are similar in their use of coursed limestone and in their quality craftsmanship. All are highly intact and are currently in service. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)



Illustration 10 Reinforced concrete arch bridge. This is the only concrete arch bridge on the proving ground. It spans about 60', and while the concrete is deteriorated and damaged in some places, it is still structurally sound. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

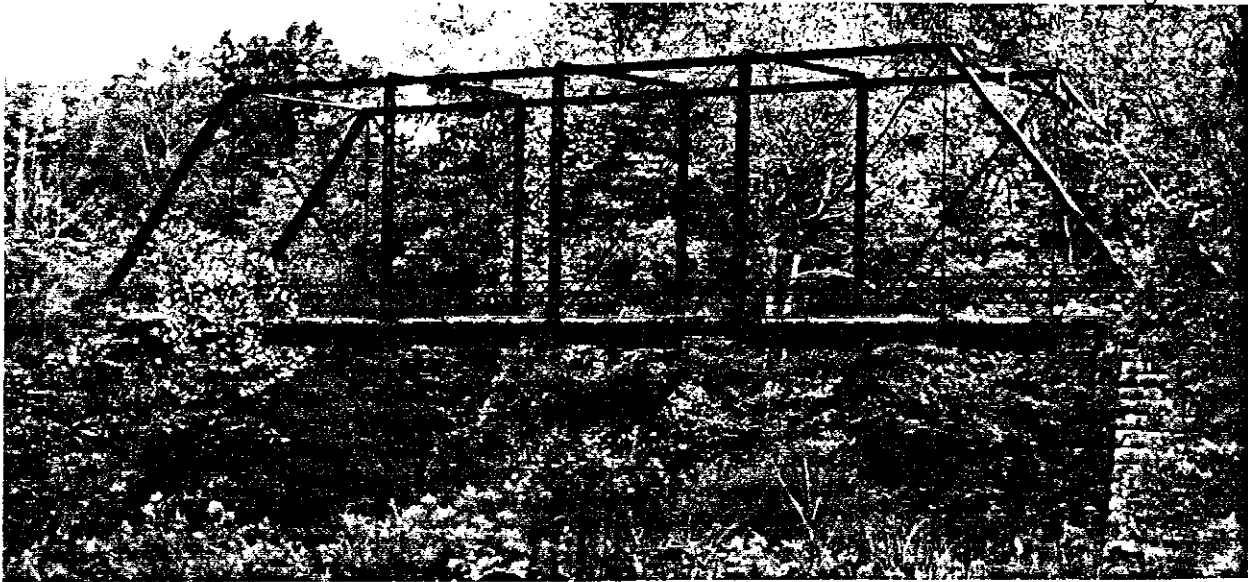


Illustration 11 Metal Pratt truss bridge. This bridge lies just off West Perimeter Road, outside the proving ground's boundaries. It is similar to the five Pratt bridges of varying spans that are located in the uprange area of the base, but which could not be photographed at the time of the survey due to the proving ground's firing schedule. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

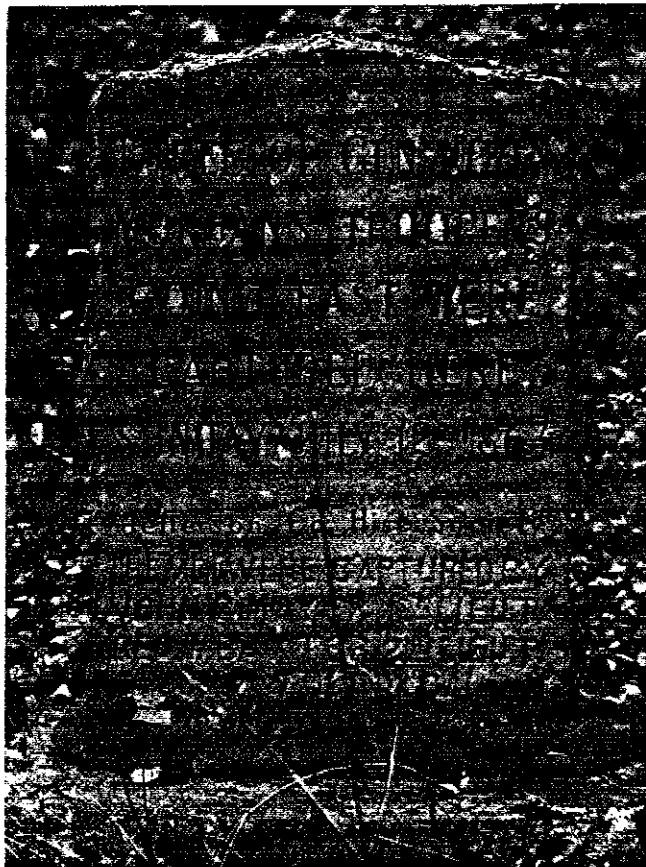


Illustration 12 Morgan's raiders marker. This stone is one of two historical markers that traces the trail of Morgan's raiders through the area during the Civil War. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

SITE SELECTION AND WORLD WAR II CONSTRUCTION

In late 1940, the Army selected a 55,000 acre site in Jefferson, Ripley, and Jennings Counties, Indiana for the construction of a proving ground to test fire ammunition for the huge Indiana Arsenal being built in nearby Charlestown. The Jefferson site was chosen because of its favorable weather conditions for test firing, the availability of labor, and its good access to nearby industrial, rail, and water transportation facilities. Further, the area was sparsely settled and much of the land had been cleared for agricultural use. Land acquisition began in the last weeks of 1940 with the Paul L. McCord Real Estate firm of Indianapolis acting as agent for the federal government. Between 500 and 600 families were displaced from the area.⁴

The War Department moved immediately to construct the installation. In December 1940, a design services contract was awarded to the firm of William Earl Russ and Merritt Harrison of Indianapolis for the buildings to be located at the southern end of the proving ground. A joint contract was signed with the J. L. Simmons Co., Inc. of Indianapolis and the J. C. O'Connor Co. of Fort Wayne for general construction at the installation. Construction began on January 1, 1941, and shortly thereafter work commenced on 14 miles of railroad lines and additions to the existing county road system. Because of the immediate need to begin testing, construction proceeded rapidly on the firing facilities, which consisted primarily of reinforced concrete safe houses and firing points along the firing line. By June, construction on the firing line was practically finished. Meanwhile, "bomb proofs," small reinforced concrete, earth-covered observation structures, were erected uprange. Testing began on May 12, 1941, before completion of all the firing facilities.⁵ (Illustration 13).

At the same time, buildings were being erected south of the firing line. The majority consisted of additional testing facilities and maintenance, storage, and assembly facilities constructed of brick and reinforced concrete. A small number of administration and support facilities of semi-permanent wood frame construction were also erected during the World War II years. A total of 149 structures were built at the installation by war's end; slightly more than two-thirds of these were built in 1941 during the initial phase of construction.

A row of eight warehouse, maintenance, and assembly facilities (Buildings 202, 204, 212, 216, 219, 223, 227, and 231) were built south of the firing line in 1941. Although their size, function, and window treatment vary, several distinguishing features tie these buildings together as a unit: all have 12"-14" thick load bearing brick walls laid in 5/1 common bond, gable roofs, roof and concrete tie bands running below the roofline, and most are one story in height. (Illustration 14).

Other buildings of similar design are scattered elsewhere at the south end of the installation. These include a radar maintenance shop (Building 311), an ammunition demolition facility (Building 322), a general purpose magazine (Building 502), an ordnance building (Building 266), facility engineering shops (Buildings 106 and 119), a telephone exchange building (Building 112), and a fire station (Building 125). All were constructed in 1941.

Initially, the proving ground's mission included testing aerial bombs, and a hangar (Building 301) for bombers and pursuit planes was constructed at the southwest side of the installation in 1941. Three 5,000 foot runways were laid adjacent to the hangar.⁶

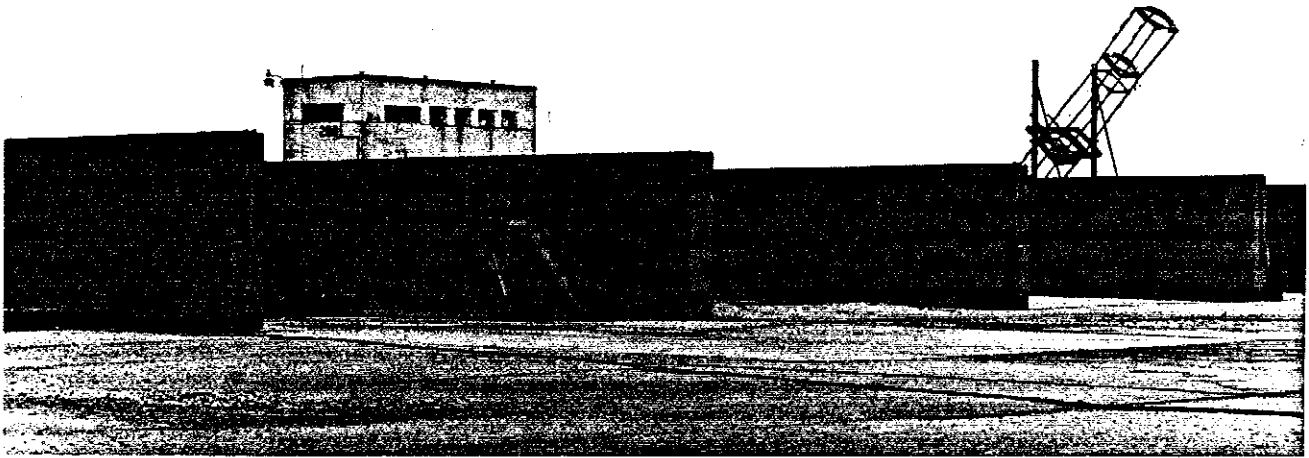


Illustration 13

Structure 274. View of north side. This reinforced concrete firing point was one of the earliest ammunition testing facilities erected at the proving ground in 1941. The structure's four firing booths face north onto the firing range. A reinforced concrete observation tower (Building 288) and ballistics measuring device lie to the south of the firing point. The complex is located at the east end of the firing line. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)



Illustration 14

Building 202. View of east and north facades. This building is typical of the brick structures erected at the installation during its initial phase of development in 1941. The characteristic features of these buildings are gable roofs, brick walls laid in 5/1 common bond, concrete tie bands below the roofline, and circular louvered vents in the gable ends. Most are one story in height. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

Six ammunition storage igloos (Buildings 268, 269, 270, 272, 276, and 278) were erected during the initial phase of construction. These structures are standard reinforced concrete earth-covered storage igloos of the single and double door type and are of various depths. Three additional storage igloos (Buildings 290, 292, and 501) were erected in 1943. Most are clustered around a U-shaped tract near the east end of the firing line.

Administration and support facilities were among the earliest structures erected at the proving ground. They are semi-permanent buildings of wood frame construction covered with asbestos cement shingles. The largest of these is the two-story post headquarters building (Building 100), an H-shaped structure built in 1941 and enlarged by an additional south wing in 1953. The base dispensary (Building 33), the Army Reserve Center (Building 127), and the post restaurant (Building 149) were also built in 1941. All three are one-and-a-half stories in height and have gable roofs. Two other semi-permanent buildings of similar construction were built in 1943: an ordnance administration building (Building 114) and a general instruction building (Building 116).⁷ (Illustration 15)

A complex of five reinforced concrete buildings housing an enclosed firing range (Building 281), a small arms plant (Building 277), and facilities for gun storage (Building 273), inert firing (Building 275), and ordnance administration (Building 279) was constructed adjacent to the firing line in 1942. A reinforced concrete small arms firing range (Building 295) was built in 1943; the eastern portion of its roof is comprised of vaults of various sizes. (Illustration 16)

The end of World War II brought a halt to activity at Jefferson Proving Ground. On September 10, 1945, all testing ceased. Employment declined from a peak

of nearly 1,300 during the war to a nucleus of 51 maintenance and security personnel. Buildings were mothballed, and several thousand acres of the installation were sub-leased to local farmers for grazing and farming purposes. In April 1946, the proving ground became a subinstallation to Indiana Arsenal.⁸

KOREAN WAR

The threat of war in Korea brought an upsurge in activity at Jefferson Proving Ground. In 1949, the installation was reactivated to test 20 to 240 mm ammunition, mines, hand grenades, and component parts. Construction of additional facilities began in 1951 to accommodate the installation's renewed activity. By war's end in 1953, a total of 107 new buildings had been constructed. Building activity continued through the next year, although at a slower rate.⁹

The majority of Korean War era structures were built for ammunition testing and the storage of materials. Among these are reinforced concrete firing points and safe houses in areas A, B, and K on the firing line, and a number of reinforced concrete, earth-covered safe houses located uprange. Twenty-five ammunition storage igloos were also built. These standard reinforced concrete earth-covered structures are located south of the World War II igloos at the east end of the firing line. Nine small reinforced concrete and concrete block temperature condition units (Buildings 550-553 and 610-614) were built in 1952. Other concrete block buildings were a heavy equipment maintenance shop (Building 186) constructed in 1953 and two large inert warehouses (Buildings 148 and 156) constructed in 1953 and 1954. (Illustration 17).

Several brick buildings were built in 1952-1954 that are consistent in design with those erected during the 1940s. Like their predecessors, their distinguishing features are load bearing brick walls generally laid in 5/1 common



Illustration 15 Building 127. View of southwest facade. Building 127 is one of the several remaining semi-permanent buildings constructed on the installation during World War II. It is of wood frame construction clad with asbestos cement shingles. It has served as an Army Reserve Center since 1941. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

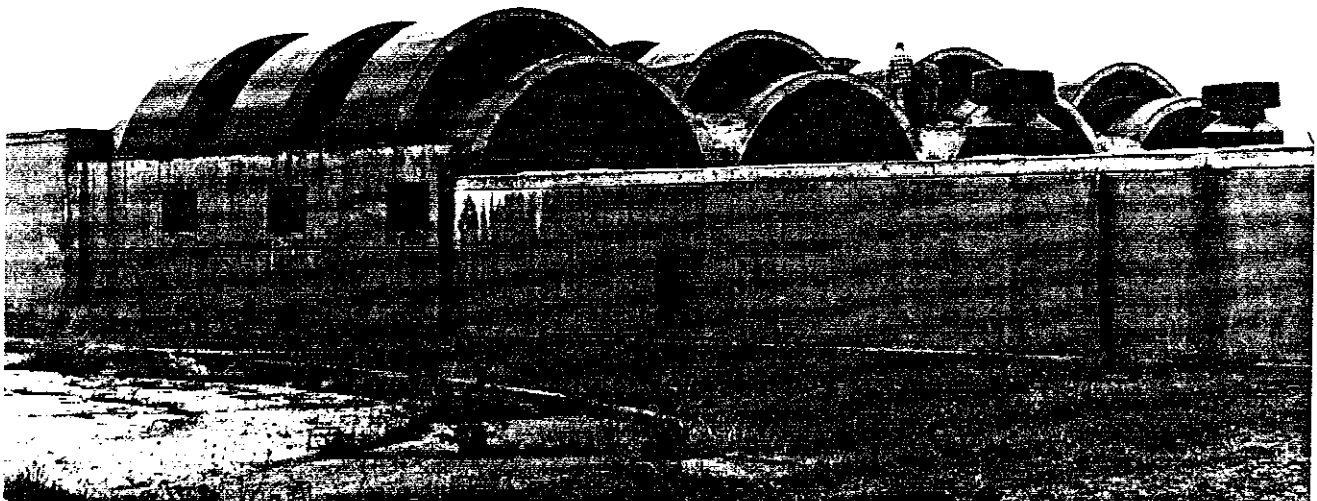


Illustration 16 Building 295. View of east and north elevations. This reinforced concrete structure was built as a small arms firing range in 1943. The portion of its roof shown here is located over the firing line. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

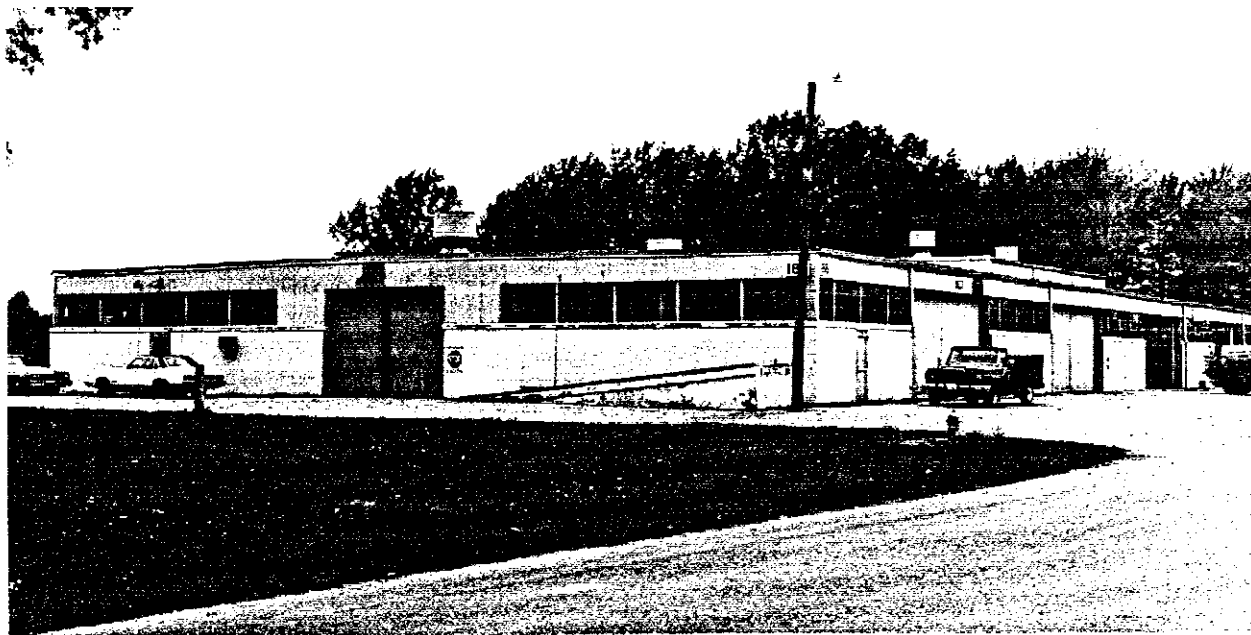


Illustration 17 Building 186. View of southeast and northeast elevations. This heavy equipment maintenance shop was built in 1953 at the height of Korean War era construction. The building has a steel frame clad with concrete block and corrugated metal. Concrete block was a common building material during this phase of the installation's development. (Source: Field inventory photograph, 1983, William Brenner, Building Technology, Inc.)

bond, a concrete tie band below the roofline, gable roofs, and louvered vents in the gable ends. Examples are the motor repair shop (Building 110), the facility maintenance shop (Building 136), a research and development test building (Building 208), the case overhaul and tank facility (Building 211), and an assembly plant (Building 215).

POST-KOREAN WAR

American production of ammunition decreased steadily after the Korean War, and testing activity at Jefferson Proving Ground subsequently declined. On October 1, 1958, the installation was placed on standby status. In 1961, the proving ground was reactivated and testing activity resumed. Since that time, only a small number of buildings have been erected. They are mostly storage facilities built in the early 1970s.

NOTES

1. Public Affairs Office, TECOM, This Is TECOM (Aberdeen Proving Ground, Maryland, n.d.), pp. 18-19.
2. Chilton Thomson, Old Timbers (Smithtown, New York: Exposition Press, Inc., 1981), p. 8.
3. Charles E. Heberhart, compiler, "Oakdale School, Jefferson Proving Ground Records" (Madison, Indiana: Jefferson County Historical Society, 1941)
4. Courier, May 12, 1956 and unidentified newspaper article, December 23, 1940 in Jefferson County Public Library, Madison, Indiana; Jefferson Proving Ground, Installation and Activity Brochure, DARCOM, September 30, 1981.
5. Indianapolis Sunday Star, March 9, 1941; unidentified newspaper articles, December 23, 1940, January 1941, June 16, 1941, and October 17, 1941 in clippings files, Jefferson County Public Library, Madison, Indiana.
6. Unidentified newspaper articles, July 10, 1941 and July 23, 1941 in clippings files, Jefferson County Public Library, Madison, Indiana.
7. Courier, May 12, 1956.
8. Ibid.
9. Ibid.

Chapter 3

PRESERVATION RECOMMENDATIONS

BACKGROUND

Army Regulation 420-40 requires that an historic preservation plan be developed as an integral part of each installation's planning and long range maintenance and development scheduling.¹ The purpose of such a program is to:

- Preserve historic properties to reflect the Army's role in history and its continuing concern for the protection of the nation's heritage.
- Implement historic preservation projects as an integral part of the installation's maintenance and construction programs.
- Find adaptive uses for historic properties in order to maintain them as actively used facilities on the installation.
- Eliminate damage or destruction due to improper maintenance, repair, or use that may alter or destroy the significant elements of any property.
- Enhance the most historically significant areas of the installation through appropriate landscaping and conservation.

To meet these overall preservation objectives, the general preservation recommendations set forth below have been developed:

Category I Historic Properties

All Category I historic properties not currently listed on or nominated to the National Register of Historic Places are assumed to be eligible for nomination regardless of age. The following general preservation recommendations apply to these properties:

- a) Each Category I historic property should be treated as if it were on the National Register, whether listed or not. Properties not currently listed should be nominated. Category I historic properties should not be altered or demolished. All work on such properties shall be performed in accordance with Sections 106 and 110(f) of the National Historic Preservation Act as amended in 1980, and the regulations of the Advisory Council for Historic Preservation (ACHP) as outlined in the "Protection of Historic and Cultural Properties" (36 CFR 800).
- b) An individual preservation plan should be developed and put into effect for each Category I historic property. This plan should delineate the appropriate restoration or preservation program to be carried out for the property. It should include a maintenance and repair schedule and estimated initial and annual costs. The preservation plan should be approved by the State Historic Preservation Officer and the Advisory Council in accordance with the above referenced ACHP regulation. Until the historic preservation plan is put into effect, Category I historic properties should be maintained in accordance with the recommended approaches of the Secretary of the Interior's Standards for Rehabilitation and Revised Guidelines for Rehabilitating Historic Buildings² and in consultation with the State Historic Preservation Officer.
- c) Each Category I historic property should be documented in accordance with Historic American Buildings Survey/Historic American

Engineering Record (HABS/HAER) Documentation Level II, and the documentation submitted for inclusion in the HABS/HAER collections in the Library of Congress.³ When no adequate architectural drawings exist for a Category I historic property, it should be documented in accordance with Documentation Level I of these standards. In cases where standard measured drawings are unable to record significant features of a property or technological process, interpretive drawings also should be prepared.

Category II Historic Properties

All Category II historic properties not currently listed on or nominated to the National Register of Historic Places are assumed to be eligible for nomination regardless of age. The following general preservation recommendations apply to these properties:

- a) Each Category II historic property should be treated as if it were on the National Register, whether listed or not. Properties not currently listed should be nominated. Category II historic properties should not be altered or demolished. All work on such properties shall be performed in accordance with Sections 106 and 110(f) of the National Historic Preservation Act as amended in 1980, and the regulations of the Advisory Council for Historic Preservation (ACHP) as outlined in the "Protection of Historic and Cultural Properties" (36 CFR 800).

- b) An individual preservation plan should be developed and put into effect for each Category II historic property. This plan should delineate the appropriate preservation or rehabilitation program to be carried out for the property or for those parts of the property which contribute to its historical, architectural, or technological importance. It should include a maintenance and repair schedule and estimated initial and annual costs. The preservation plan should be approved by the State Historic Preservation Officer and the Advisory Council in accordance with the above referenced ACHP regulations. Until the historic preservation plan is put into effect, Category II historic properties should be maintained in accordance with the recommended approaches in the Secretary of the Interior's Standards for Rehabilitation and Revised Guidelines for Rehabilitating Historic Buildings⁴ and in consultation with the State Historic Preservation Officer.
- c) Each Category II historic property should be documented in accordance with Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Documentation Level II, and the documentation submitted for inclusion in the HABS/HAER collections in the Library of Congress.⁵

Category III Historic Properties

The following preservation recommendations apply to Category III historic properties:

- a) Category III historic properties listed on or eligible for nomination to the National Register as part of a district or thematic group should be treated in accordance with Sections 106 and 110(f) of the National Historic Preservation Act as amended in 1980, and the regulations of the Advisory Council for Historic Preservation as outlined in the "Protection of Historic and Cultural Properties" (36 CFR 800). Such properties should not be demolished and their facades, or those parts of the property that contribute to the historical landscape, should be protected from major modifications. Preservation plans should be developed for groupings of Category III historic properties within a district or thematic group. The scope of these plans should be limited to those parts of each property that contribute to the district or group's importance. Until such plans are put into effect, these properties should be maintained in accordance with the recommended approaches in the Secretary of the Interior's Standards for Rehabilitation and Revised Guidelines for Rehabilitating Historic Buildings⁶ and in consultation with the State Historic Preservation Officer.
- b) Category III historic properties not listed on or eligible for nomination to the National Register as part of a district or thematic group

should receive routine maintenance. Such properties should not be demolished, and their facades, or those parts of the property that contribute to the historical landscape, should be protected from modification. If the properties are unoccupied, they should, as a minimum, be maintained in stable condition and prevented from deteriorating.

HABS/HAER Documentation Level IV has been completed for all Category III historic properties, and no additional documentation is required as long as they are not endangered. Category III historic properties that are endangered for operational or other reasons should be documented in accordance with HABS/HAER Documentation Level III, and submitted for inclusion in the HABS/HAER collections in the Library of Congress.⁷ Similar structures need only be documented once.

CATEGORY I HISTORIC PROPERTIES

There are no Category I historic properties at Jefferson Proving Ground.

CATEGORY II HISTORIC PROPERTIES

There are no Category II historic properties at Jefferson Proving Ground.

CATEGORY III HISTORIC PROPERTIES

Old Timbers Lodge (Building 485)

- Background and significance. Located near the northeast corner of the proving ground, Old Timbers Lodge was built as a country house in the

1930s by Cincinnati industrialist Alexander Thomson. It is currently used as a recreational facility for installation personnel. The lodge's rambling exterior is not architecturally notable, but its 62' x 26' "Great Hall" is an impressive interior space, flanked by massive stone fireplaces and bridged by large hand-hewn wood beams. (See Chapter 2, Pre-military Land Use, and Illustrations 4 and 5.) The lodge is a Category III historic property because it is important locally as an architectural landmark and is a good example of an intact country house built in the arts and crafts tradition of the early twentieth century.

- Condition and potential adverse impacts. The lodge is in good condition and receives routine maintenance and repair. There are no current plans to alter or demolish the structure.
- Preservation recommendations. Refer to the general preservation recommendations at the beginning of this chapter for Category III historic properties not listed on the National Register.

Oakdale School (Building 401)

- Background and significance. The Oakdale School, built in the late 1860s, is the oldest surviving building on the proving ground and one of the few remaining one-room schoolhouses in the local area. Constructed of stone masonry, it is of simple but well proportioned design. (See Chapter 2, Pre-military Land Use, and Illustration 6.) The building is a Category III historic structure because it is a good example of a highly intact architectural type and because it is unique to its historic era.
- Condition and potential adverse impacts. The schoolhouse is located several hundred yards north of the firing line but out of the line of

fire. It is in fair condition, but continues to slowly deteriorate for lack of maintenance and repair. There are no current plans to alter or demolish the building.

- Preservation recommendations. Consideration should be given to stabilizing the structure by keeping the roof in good repair and otherwise weatherproofing it. Refer to the general preservation recommendations at the beginning of this chapter for Category III historic properties not listed on the National Register.

Four Stone Arch Bridges (Bridges 17, 25, 27, and 28)

- Background and significance. The four stone arch bridges located in the uprange area are undated, but were likely erected between the 1850s, when the area was sufficiently inhabited and prosperous enough to build such structures, and the 1880s or 1890s, when metal bridges generally came into use. The bridges are constructed of coursed limestone and are similar in basic design (they may have been built under the direction of the same mason). Bridge 25 has a single arch, Bridges 17 and 28 double arches, and Bridge 27 triple arches. (See Chapter 2, Pre-military Land Use, and Illustrations 9, 10, and 11.) The bridges are Category III historic properties because they are good examples of an intact historic engineering type and because they are locally important as excellent examples of masonry bridge design and construction.
- Condition and potential adverse impacts. The bridges all appear to be in good structural condition and are included in an ongoing bridge maintenance program. There are no current plans to alter or demolish the

bridges, although since they are located in the firing range there is always a chance that they will be damaged by an artillery round.

- Preservation recommendations. The four bridges should be routinely maintained and all original features should be kept intact. When mortar repairs are made, the original mortar should be duplicated in strength, color, composition, and texture. Mortar joints should be duplicated in width and in joint profile. Stonework repairs should be made with like materials and follow the structural principles upon which each bridge was built.

NOTES

1. Army Regulation 420-40, Historic Preservation (Headquarters, U.S. Army: Washington, D.C., 15 April 1984).
2. National Park Service, Secretary of the Interior's Standards for Rehabilitation and Revised Guidelines for Rehabilitating Historic Buildings, 1983 (Washington, D.C.: Preservation Assistance Division, National Park Service, 1983).
3. National Park Service, "Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines," Federal Register, Part IV, 28 September 1983, pp. 44730-44734.
4. National Park Service, Secretary of the Interior's Standards.
5. National Park Service, "Archeology and Historic Preservation."
6. National Park Service, Secretary of the Interior's Standards.
7. National Park Service, "Archeology and Historic Preservation."

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